

FIG. 1

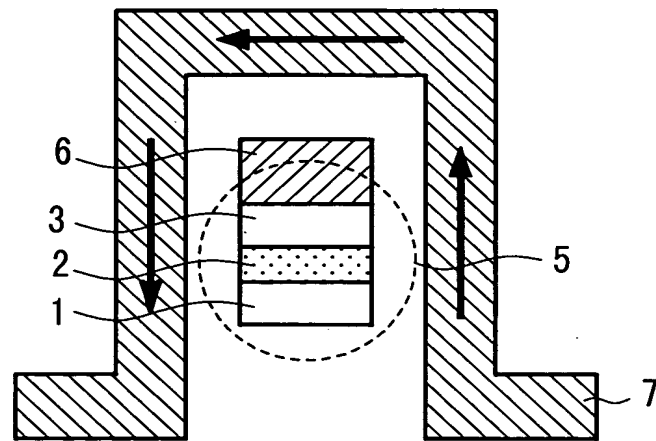


FIG. 2

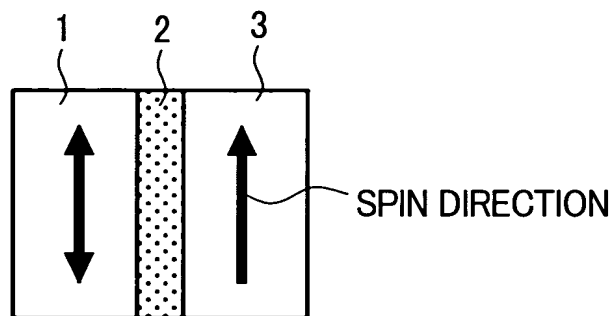
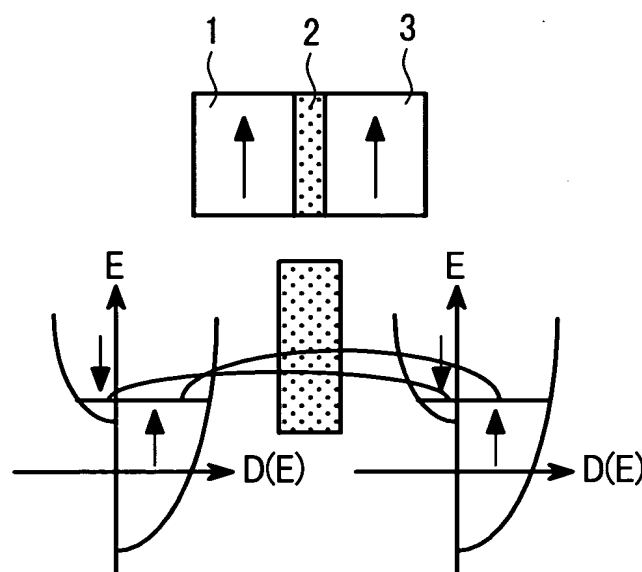


FIG. 3A

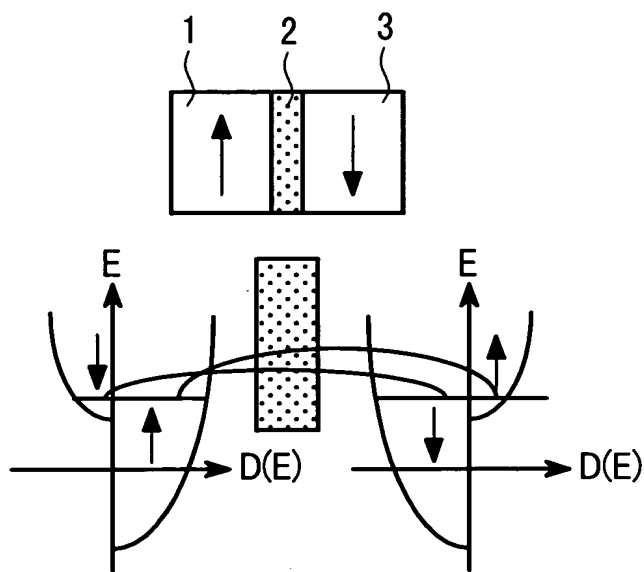


$1/R \sim D_1(E) \cdot D_2(E)$
 1: BEFORE TUNNELING
 2: AFTER TUNNELING

RESISTANCE: SMALL

WHEN THE SPINS ARE PARALLEL

FIG. 3B



RESISTANCE: LARGE

WHEN THE SPINS ARE ANTI-PARALLEL

FIG. 4

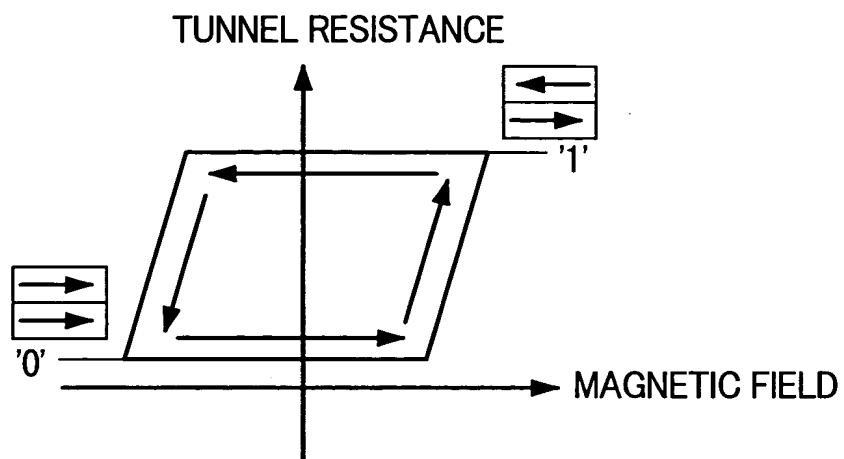


FIG. 5

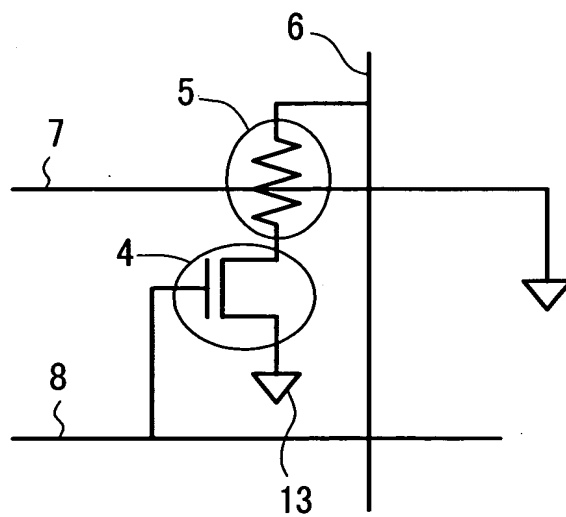


FIG. 6

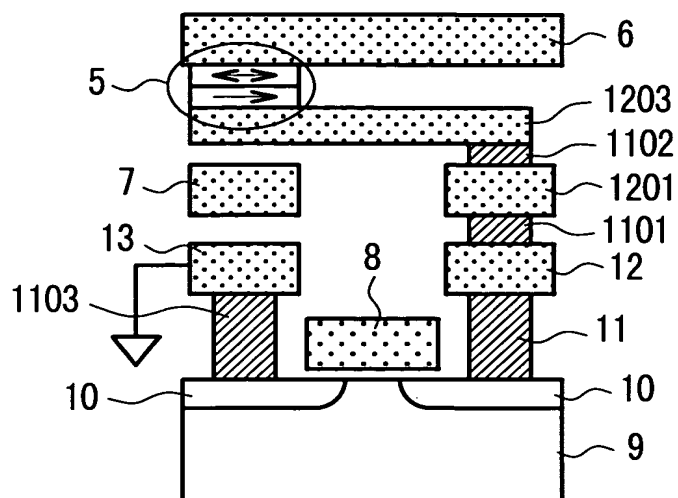


FIG. 7

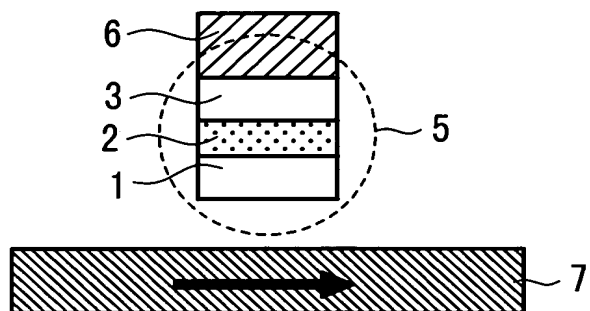


FIG. 8

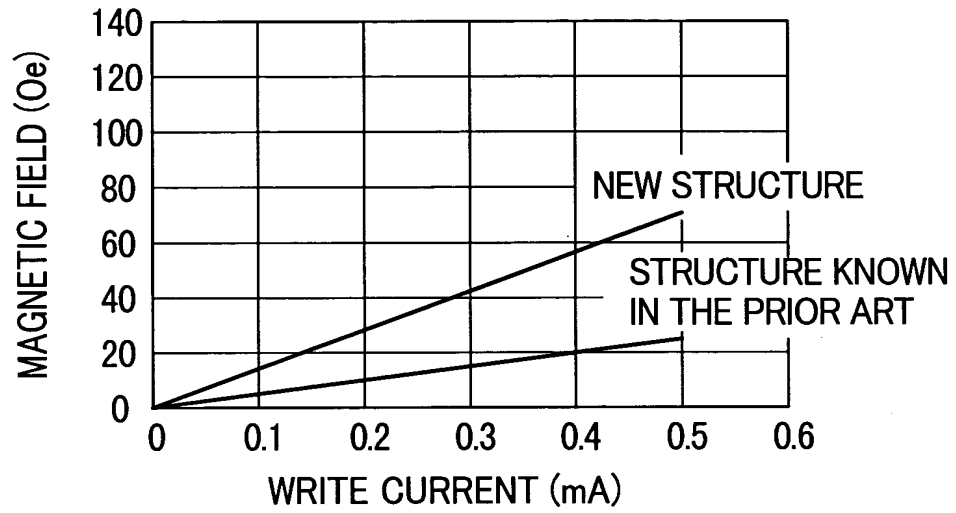
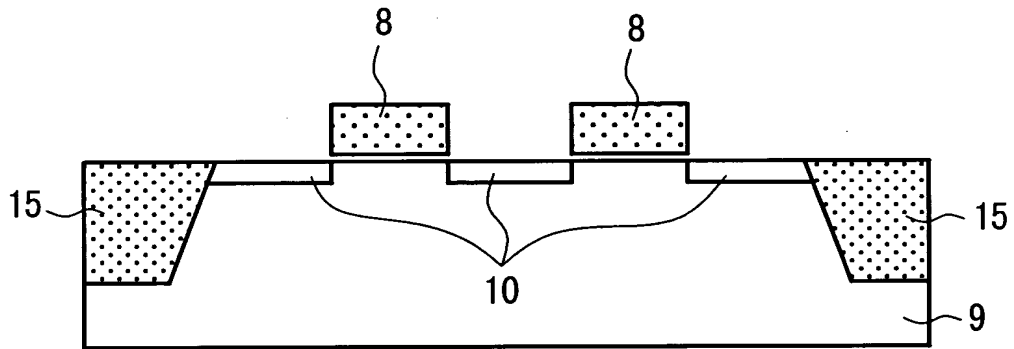


FIG. 9



(CROSS SECTION ALONG AA-DIRECTION IN FIG.10)

FIG. 10

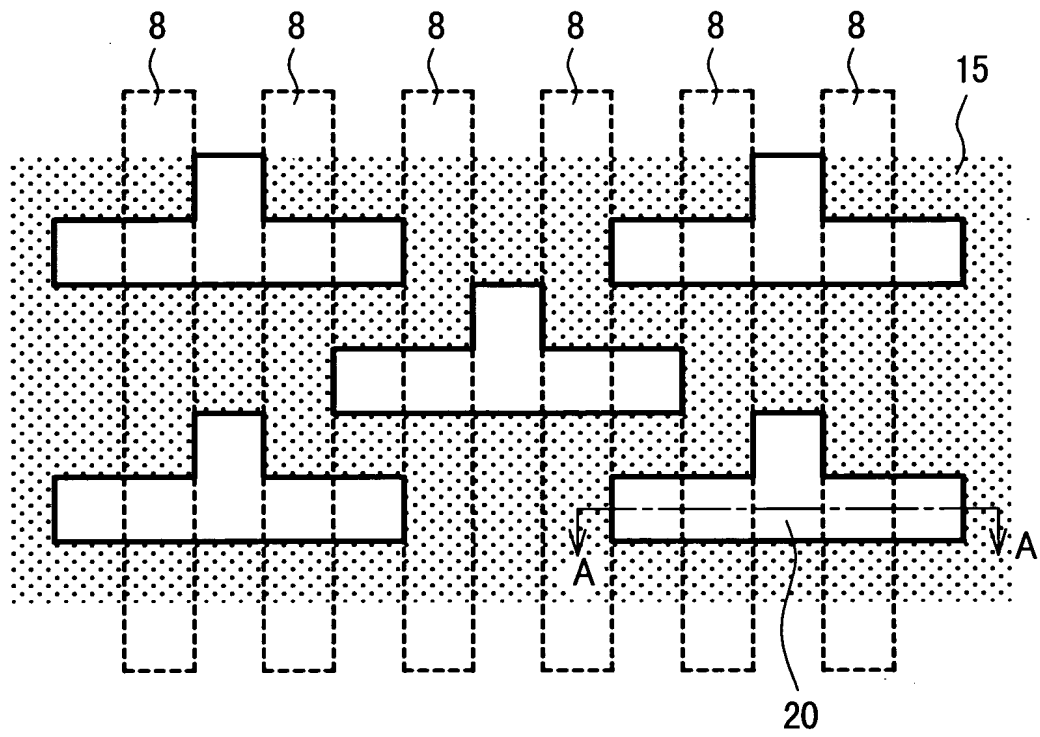


FIG. 11

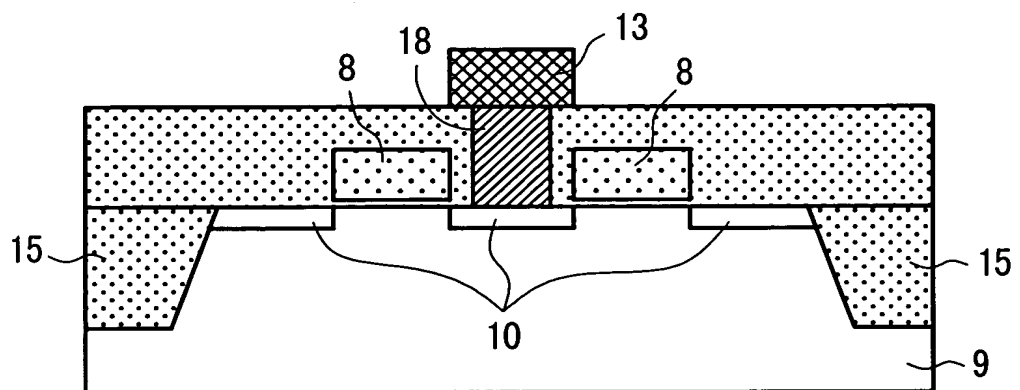


FIG. 14

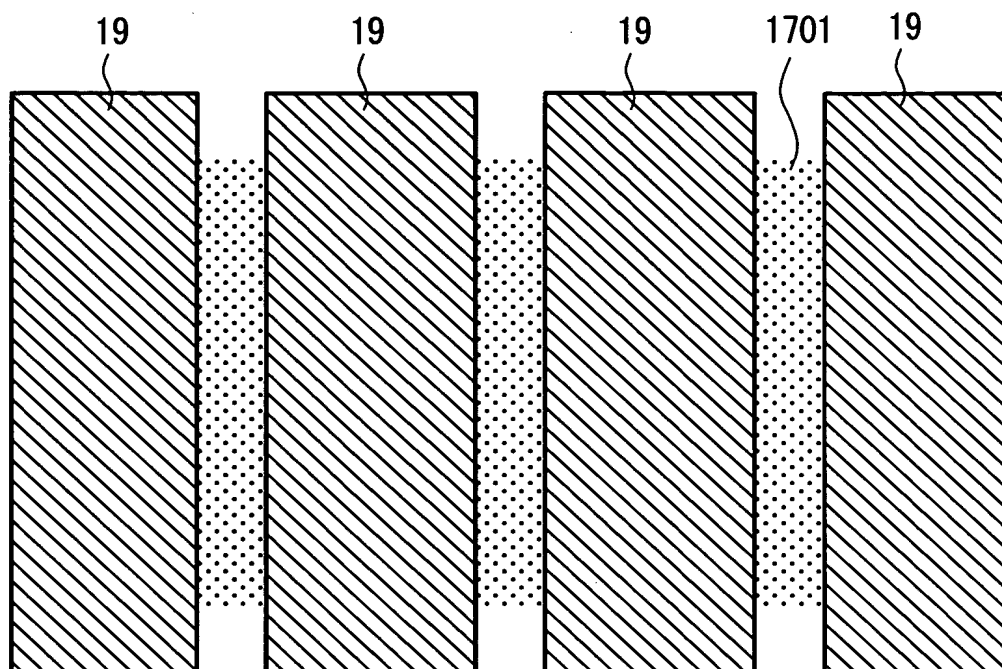
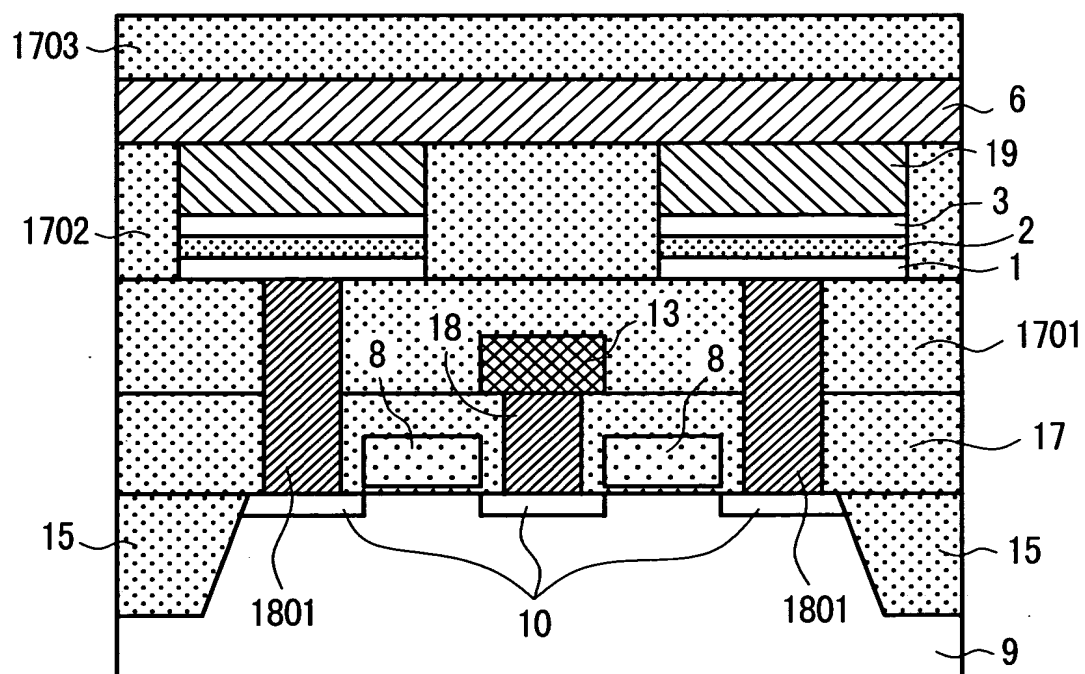


FIG. 15



[illegible]

FIG. 18

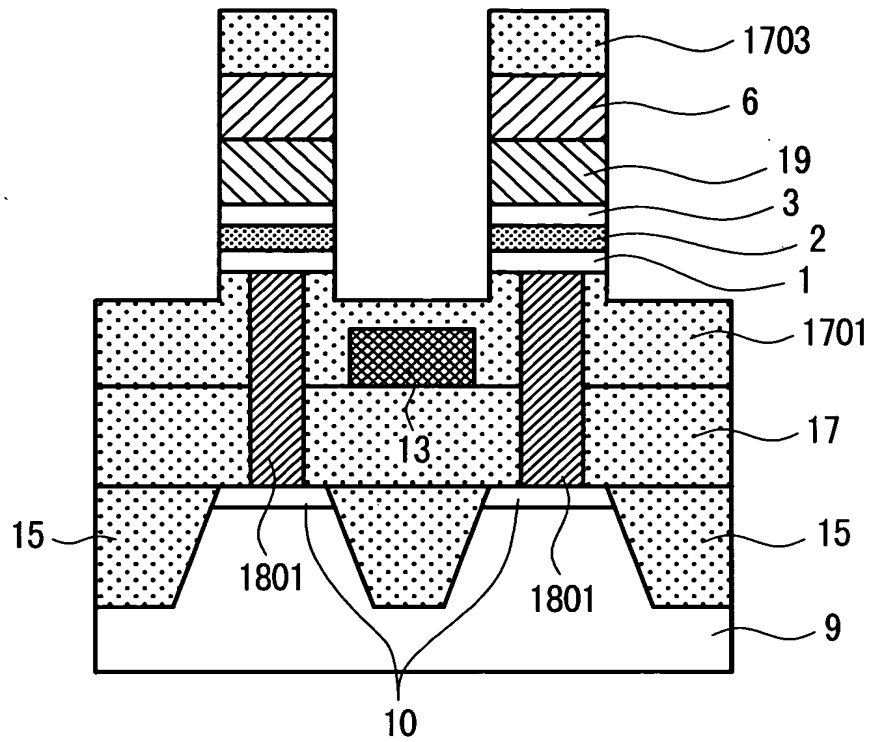
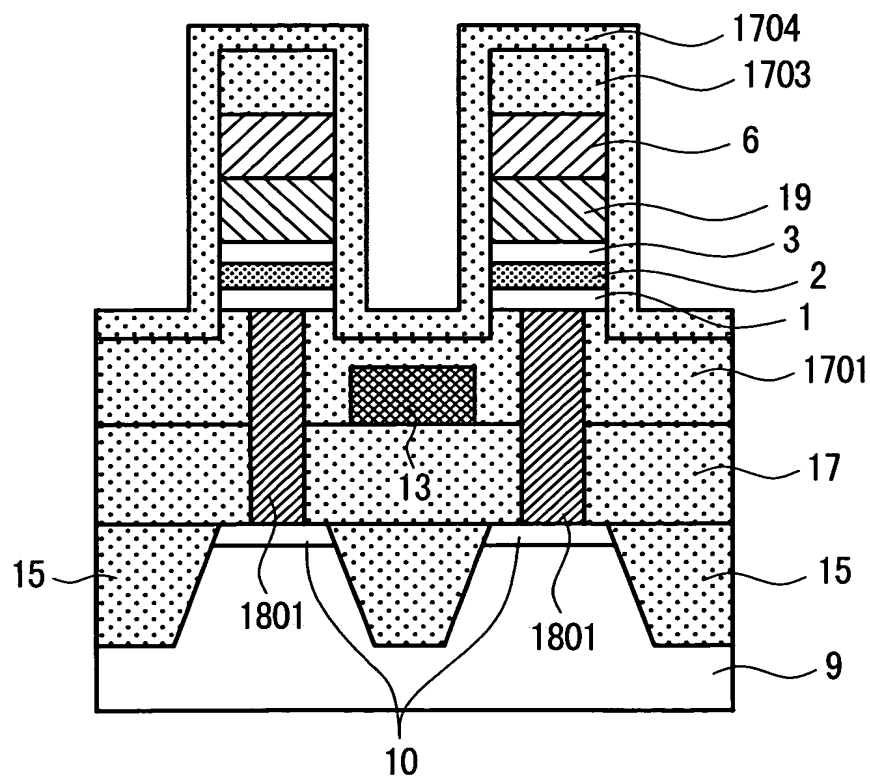


FIG. 19



[illegible]

[illegible][illegible]

FIG. 26

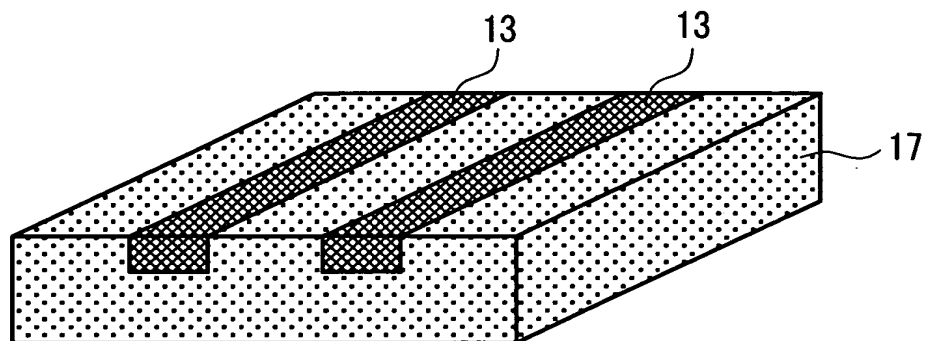


FIG. 27

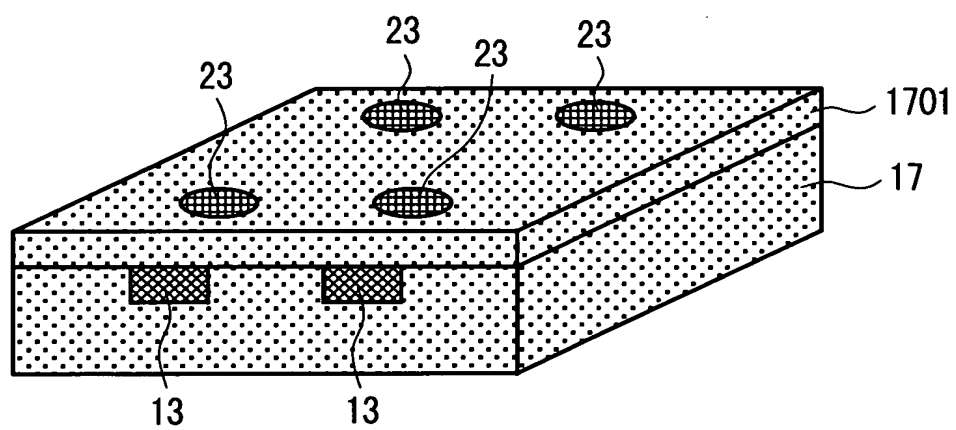


FIG. 28

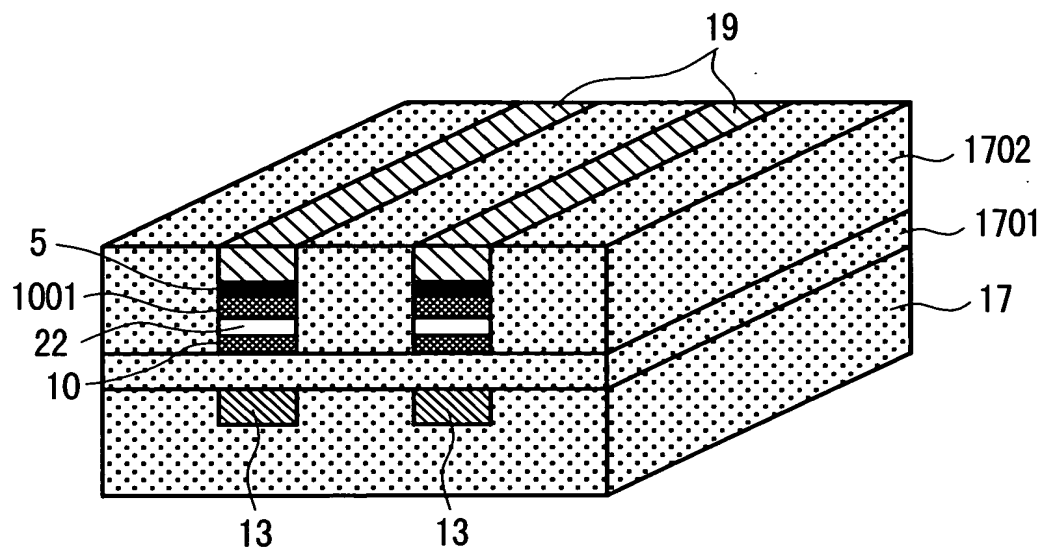


FIG. 29

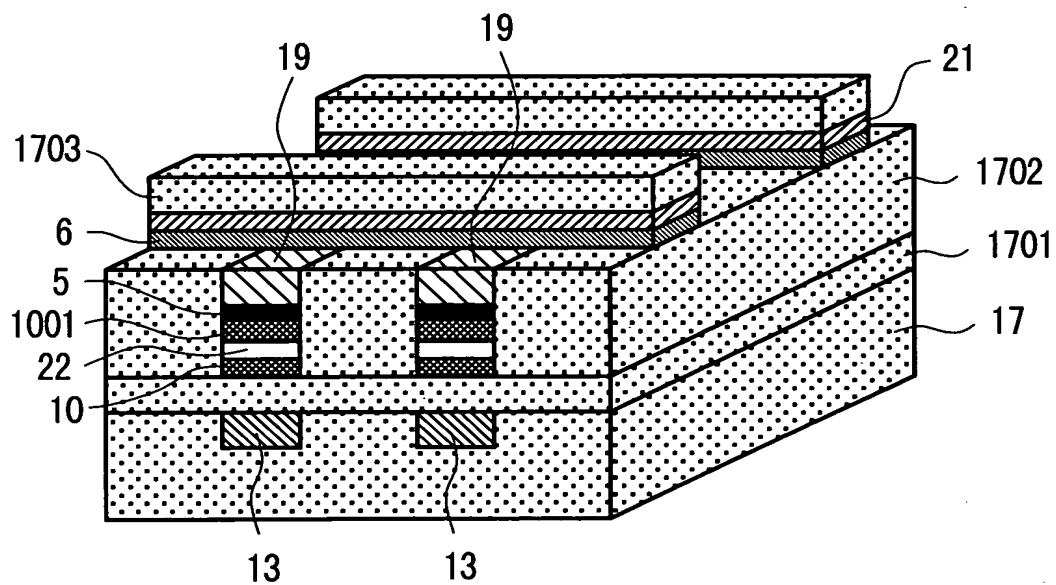


FIG. 30

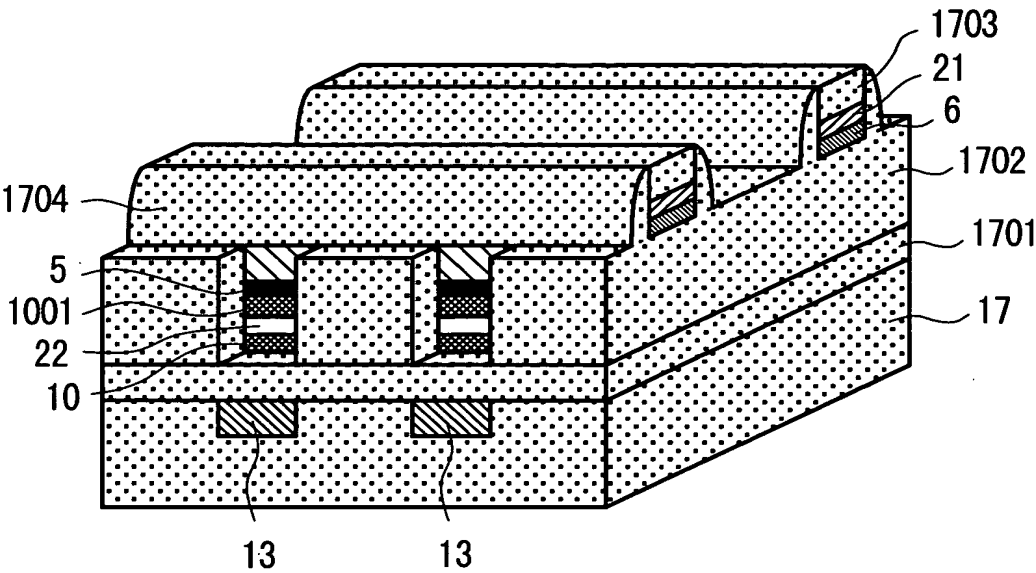


FIG. 31

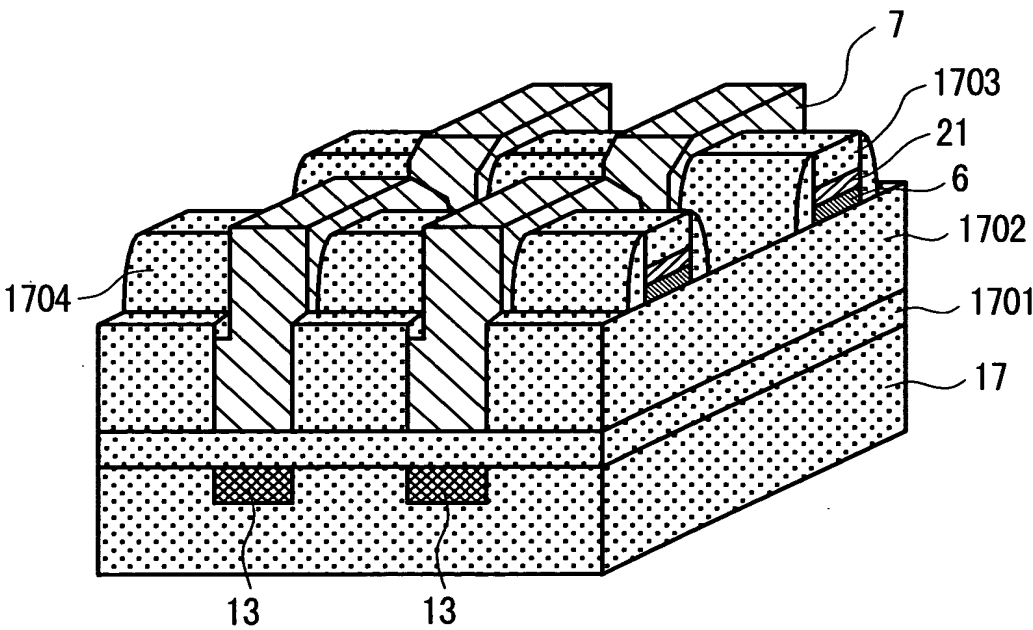


FIG. 32

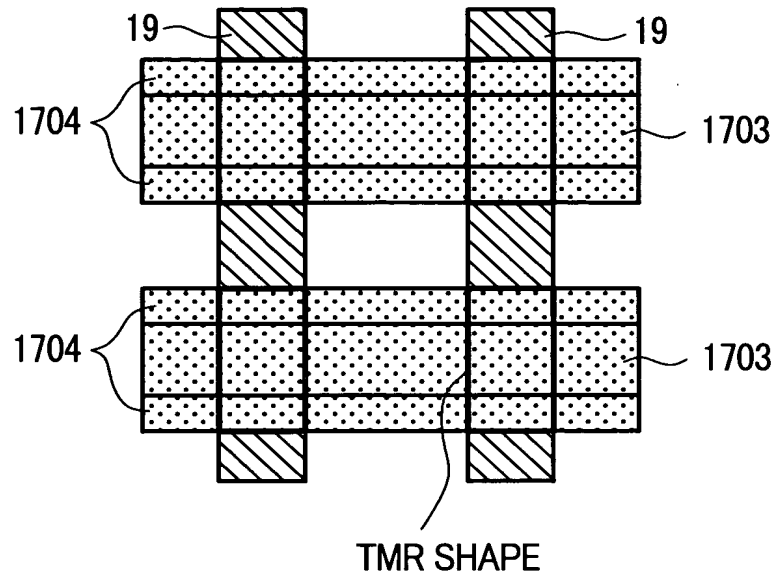


FIG. 33

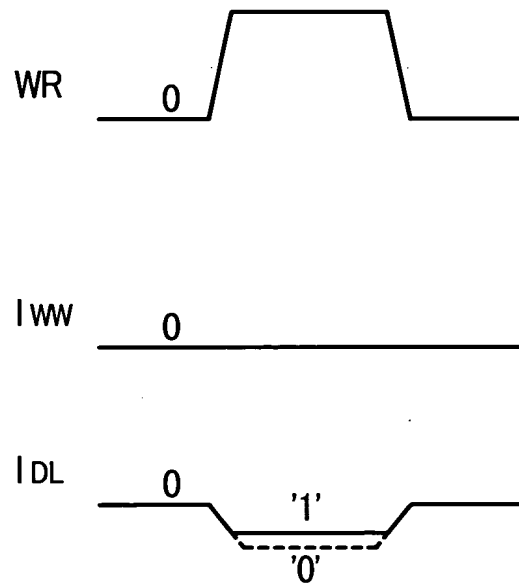


FIG. 34

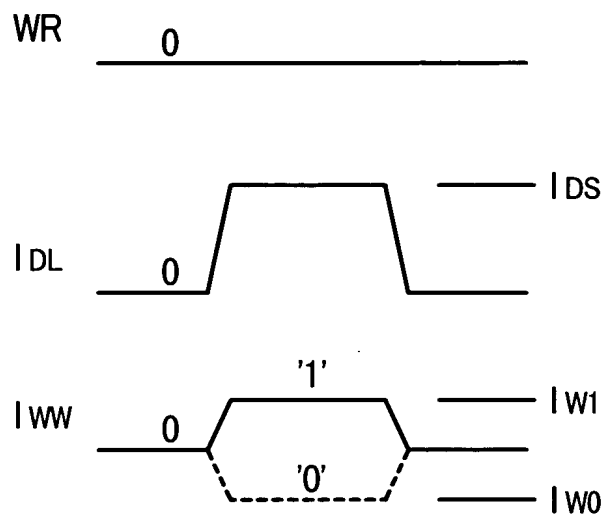


FIG. 35

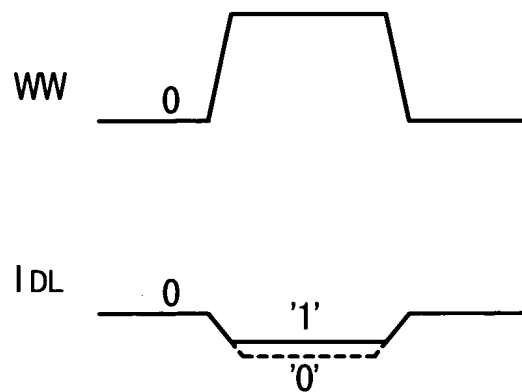


FIG. 36

